<u>REMARKS</u>

Claims 1-3, 5-12, 14-20, 22-29, 31-37, 39-46, and 48-59 are pending in this application. Claims 1, 10, 18, 27, 35, and 44, all the independent claims, have been amended to define still more clearly what Applicants regard as their invention. New independent Claims 58 and 59 have been added to assure Applicants of a fuller measure of protection of the scope to which they deem themselves entitled. Favorable reconsideration is requested.

Initially, Applicants note that the Office Action Summary indicates that Claims 4, 13, 21, 30, 38, and 47 have been withdrawn from consideration; however, these claims were canceled in the Amendment After Final Action And Petition For Extension Of Time filed on April 17, 2003. Additionally, paragraph 2 of the Office Action (at page 2) does not indicate that Claim 57, which has not been canceled, is pending.

Claims 1-57 were rejected under 35 U.S.C. § 103(a) as being obvious from U.S. Patent 6,032,157 to Tamano et al. in view of U.S. Patent 6,175,829 to Li et al. Applicants respectfully traverse the rejections and submit that independent Claims 1, 10, 18, 27, 35, and 44, as well as the claims dependent therefrom, are patentably distinct from the cited art for at least the following reasons.

Claim 1 is directed to an image managing apparatus for managing retrievable images. The apparatus includes input means and memory means. The input means inputs relevant information concerning a plurality of objects within a single image. The relevant information includes a word describing an interrelationship between at least two objects within the single image. The memory means stores the relevant information

inputted by the input means in association with each of the plurality of objects in the single image, respectively.

One notable feature of Claim 1 is that relevant information concerning a plurality of objects within a single image is inputted, and the relevant information includes a word describing an interrelationship between at least two objects within the single image. As a non-limiting, illustrative example, the apparatus of Claim 1 can retrieve images such as that of a cat lying on a table, or a cat eating a mouse, by using relevant information including a word describing an interrelationship between at least two objects (e.g., "lying" - "a table" and "eating" - "a mouse" in this example) within a single image.

Tamano et al., as understood by Applicants, relates to a retrieval method that uses image information. In Tamano et al., maps are one example of image information, while a resident database is one example of attribute information. The maps geographically represent locations of objects such as roads, railway tracks, facilities, buildings, or airports. In Fig. 1, at least two files of image information, i.e., first image information 1 and second image information 2, are employed. A residence map is one example of the first image information 1. The residence map is made up of objects 3 each of which represents the site (physical location) of a different household in the image. The respective objects 3 are linked to the attribute information stored in an attribute information file 4. This linkage is stored in a link information file 5 for linking image objects and attributes.

As one example of the second image information 2, a road map which describes the status of roads is employed. The second image information 2 has no stored direct linkage with the attribute information, but does have direct unstored correspondence

to the first information 1 only with respect to a physical positional relation. For example, two parts, objects of the first and second image information, correspond to each other as indicated by arrow A of Fig. 1, and portions thereof represent a positionally identical area. The correspondence (inputted by the user) between an object represented by the first image information 1 and an object represented by the second image information 2 is stored in a link information file 6. The first and second image information is stored in respective locations of an image information file 7. A link information table 30 provides linkage information between images and is in the file 6.

In short, Tamano et al. is understood to provide a retrieval system which makes the objects of <u>a plurality of images</u> (for example, a residential map and a road map) correspond to each other. Applicants submit that this is different from the apparatus of Claim 1, in which objects are interrelated within <u>a single image</u>.

Furthermore, Tamano et al. only makes the objects correspond to each other by coordinate values (see Fig. 3, for example), that is, a physical (locational) mapping of objects of one image to objects of another image. Nothing in Tamano et al. is believed to teach or suggest using relevant information including a word describing an interrelationship between at least two objects within the same image, as claimed in Claim 1. Accordingly, the system of Tamano et al. cannot easily distinguish between image retrievals of an image of a cat lying on a table, and an image of a cat eating a mouse, unlike the apparatus of Claim 1.

Li et al., as understood by Applicants, relates to a system for verifying a query to provide feedback to users for query reformulation. Query verification estimates the size of the answer set of a query and finds mismatches between the user's query

specifications and the semantic and visual characteristics of images in the database. By utilizing selectivity statistics regarding image semantics and visual characteristics, a query verifier checks if a given query can produce satisfactory results for users.

Applicants are unable to find any teaching or suggestion in Li et al. of using relevant information including a word describing an interrelationship between at least two objects within the single image, as recited in Claim 1, and thus Li et al. fails to remedy the deficiencies of Tamano et al. The Li et al. system may search for two objects, a man and a car in one example (see column 12), however, there is no information describing an interrelationship between these objects (i.e., between the man and the car).

Nothing in Tamano et al. or Li et al., either separately or in combination (assuming such combination would even be permissible), would teach or suggest inputting relevant information concerning a plurality of objects within a single image, wherein the relevant information includes a word describing an interrelationship between at least two objects within the single image, as claimed in Claim 1.

Accordingly, Applicants submit that Claim 1 is patentable over the cited art, and respectfully request withdrawal of the rejection under 35 U.S.C. § 103(a). Independent Claims 10, 18, 27, 35, 44, 58, and 59 each include a feature similar to that discussed above, in which information is retrieved according to relevant information concerning a plurality of objects within a single image, the relevant information including a word describing an interrelationship between at least two objects within the single image. Therefore, those claims also are believed to be patentable for at least the same reasons as discussed above.

A review of the other art of record has failed to reveal anything which, in Applicants' opinion, would remedy the deficiencies of the art discussed above, as

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references against the independent claims herein. Those claims are therefore believed patentable over the art of record.

The other claims in this application are each dependent from one or another of the independent claims discussed above and are therefore believed patentable for the same reasons. Since each dependent claim is also deemed to define an additional aspect of the invention, however, the individual reconsideration of the patentability of each on its own merits is respectfully requested.

In view of the foregoing amendments and remarks, Applicants respectfully request favorable reconsideration and early passage to issue of the present application.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 218-2100. All correspondence should continue to be directed to our below listed address.

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